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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,294

03/30/2005

Hwee Chul Kim

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EXAMINER

ZARROLI, MICHAEL C

ART UNIT

PAPER NUMBER

2839

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/507,294

Applicant(s)

KIM, HWEE CHUL

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 5 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because there are blurred or illegible lines. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the cable connection means** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The abstract of the disclosure is objected to because in the first sentence there is implied language and language alleging benefits. Correction is required.

See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: On page 8 line 8 “fane.”

Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: The Background Arts section appears to be in idiomatic English probably due to a poor translation. The other sections seem acceptable

Appropriate correction is required.

***Claim Objections***

6. Claims 1-2 objected to because of the following informalities: The different occurrences of “mean” should be pluralized. Also, line 11 “equipped both ends.”

Appropriate correction is required.

7. Claim 8 objected to because of the following informalities: Antecedent problem with “connection means.” Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-4, 8-9, 10 & 12 rejected under 35 U.S.C. 102(e) as being clearly anticipated by Korinsky et al.

Korinsky discloses a cooling system for electric elements in a personal computer PC (col. 1 lines 7-9), comprising: inhale mean 708 being equipped at a back side of the PC case fig. 7A for inhaling an external cool air into the PC; an air duct 706 having one end connected to the inhale mean and other end connected to a desired electric element 736 for directly leading the external cool air to the desired electric element (col. 8 lines 11-13); and connection parts 734, 730 equipped both ends of the air duct for connecting the inhale means and the air duct or connecting the air duct and the desired electric element fig. 7B.

Claim 2 Korinsky discloses that a plurality of holes formed on a front and lateral side of the PC case (col. 8 lines 26-28) for inhaling the external cool air; and

exhale mean equipped on a back side of the PC case for exhaling an internal warm air to outside (claim 13).

Claim 3 Korinsky discloses a fan 504.

Claim 4 Korinsky discloses that an exhale air leading pipe being 302, 304 connected to the exhale means for leading the internal warm air from the exhale means to upward of outside to the PC in order to prevent to re-inhale to inside of the PC.

Claims 8 & 9 Korinsky discloses that the air duct further includes a rotation means pan bearing (unnumbered fig. 6B for example circular part above 622) interleaved between the connection means and the air duct.

Claims 10 & 12 Korinsky discloses that the air duct is constructed by assembling independent parts of connection means and an air duct pipe (figures 6B or 7B) with the connection means being by bonding (col. 4 lines 43-44).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claim 1 above, and further in view of Wang (US6567267).

Korinsky does not disclose that the air pipe is wrinkled.

Wang discloses an air duct includes an air duct pipe having a form of wrinkled pipe 8. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the air duct pipe of Korinsky to be wrinkled as taught by Wang. The motivation for this is well known in the art and would be to alter the heat dissipation characteristics of the assembly.

12. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claims 1 & 10 above, and further in view of Ritzman. Korinsky does not disclose the use of cables to fix the connection means.

Ritzman disclose using cables 44 to fix the connection means. At the time the invention was made it would have been obvious to one of ordinary skill in the art to use cables to fix the connection means of Korinsky as taught by Ritzman. The motivation for this is well known in the art and would be to quickly and cheaply affixes the connection means.

13. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claim 1 above, and further in view of Williams.



Korinsky does not specifically disclose that screws are used to fix the connection part.

Williams discloses that a connection part is fixed with a screw to electric elements or to the exhale means (figures 5A or 12). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify how the connection means of Korinsky is fixed using screws as taught by Williams. The suggestion for this is found in Korinsky figure 2 or 5A where unnumbered screw holes are shown.

14. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claim 1 above, and further in view of Vinson et al. Korinsky does not disclose using snap rings.

Vinson discloses that a connection part is fixed with a snap ring 170 to electric elements or to the exhale means. At the time the invention was made it would have been obvious to one of ordinary skill in the art to use a snap ring to affix the connection part as taught by Vinson. The motivation for this is well known in the art and would be to enable speedy removal of parts for quick maintenance.

15. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claim 1 above, and further in view of Gan. Korinsky does not disclose the use of rivets to affix parts.

Gan discloses rivets used to affix electric elements (col. 2 lines 54-57). At the time the invention was made it would have been obvious to one of ordinary skill in the art to use rivets to fix the connection part of Korinsky as taught by Gan. The motivation for this is well known in the art and would be to better secure the connection part of Korinsky especially in high stress applications.

16. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Korinsky et al as applied to claim 1 above, and further in view of Lin.

Korinsky does not disclose the use of holding taps.

Lin discloses holding taps 242 for connecting the connection part. At the time the invention was made it would have been obvious to one of ordinary skill in the art to add holding taps to the connection part of Korinsky as taught by Lin. The motivation for this is well known in the art and would be to better secure the parts especially in high stress environments.

***Allowable Subject Matter***

17. Claims 5 & 7 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: Claim 5 the connection plate structure. Claim 7 the non-woven fabric pipe.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael C. Zarroli  
Primary Examiner  
Art Unit 2839

  
MCZ